

Abstract

Systems and methods apply ultrasound energy to the thoracic cavity of an individual. The systems and methods couple an electrical signal generating machine to an ultrasound applicator. The electrical signal generating machine includes a controller to generate electrical signals to operate the ultrasound applicator during a treatment session to produce ultrasound energy in pulses at (i) a prescribed pulse repetition frequency (PRF), (ii) a prescribed fundamental therapeutic frequency laying within a range of fundamental therapeutic frequencies not exceeding about 500 kHz, and (iii) at a duty cycle (DC) of about 50% or less. According to this aspect of the invention, the duty cycle (DC) is expressed as $DC = PD \text{ divided by } 1/PRF$, where PD is the amount of time for one pulse.

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